

In the claims:

For the convenience of the Examiner, all claims being examined, whether or not amended, are presented below.

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D
D
Dub E1

1. **(Amended Twice)** A method for inhibiting reduction of bone density in a mammalian patient having a pathological condition in which bone density is decreased, comprising inhibiting in the patient the formation of a tertiary complex of Interleukin-11 (IL-11), Interleukin-11 receptor (IL-11R), and gp130, thereby decreasing the rate in loss of bone density in said mammalian patient.

Dub E1

2. **(Reiterated)** The method of claim 1, which comprises administering to the patient an effective amount of a substance which inhibits, *in vivo*, the formation of a tertiary complex of IL-11, IL-11R, and gp130.

Dub E1

3. **(Reiterated)** The method of claim 2, wherein the pathological condition is postmenopausal bone loss.

4. **(Reiterated)** The method of claim 2, wherein the substance is a mutant IL-11R.

D2

5. **(Amended Twice)** The method of claim 4 or claim 8, wherein the mutant IL-11R has at least one mutation in its gp130 binding region.

6. **(Amended Twice)** The method of claim 5, wherein the mutant IL-11R has at least one of

- D3*
9. **(Amended Twice)** The method of claim 4 or claim 8, wherein the mutant IL-11R is a human IL-11R.
10. **(Reiterated)** The method of claim 2, wherein the substance is an anti IL-11 antibody.
11. **(Reiterated)** The method of claim 2, wherein the substance is an IL-11 binding peptide.
12. **(Reiterated)** The method of claim 11, wherein the substance is an IL-11 binding peptide having an amino acid sequence which specifically binds IL-11 in the region normally bound by IL-11R.
- D4*
13. **(Amended Twice)** The method of claim 12, wherein the substance is a peptide comprising the sequence identified by SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, or SEQ ID NO: 10.
- Part E17*
14. **(Reiterated)** The method of claim 2, wherein the substance is a small molecule no more than 30 kd in molecular weight.
15. **(Reiterated)** The method of claim 2, wherein the substance is an IL-11 antagonist.
16. **(Reiterated)** The method of claim 2, wherein the substance is an IL-11R binding peptide.
17. **(Reiterated)** The method of claim 2, wherein the substance is an anti IL-11R antibody which inhibits interactions between IL-11 and the IL-11R.
18. **(Reiterated)** The method of claim 2, wherein the substance is an anti IL-11R antibody which inhibits interactions between IL-11R and gp130.
- D5*
40. **(Amended Twice)** A composition useful in inhibiting IL-11 / IL-11R binding comprising an antibody which specifically binds the IL-11R and blocks binding between IL-11 and IL-11R.

41. (Amended Twice) A composition useful in inhibiting IL-11R / gp130 binding via the gp130 binding site on IL-11R comprising an antibody which specifically binds the IL-11R and blocks binding between gp130 and IL-11R.

Please add the following new claim:

42. (New) The method of claim 13, wherein the peptide comprises a sequence identified by SEQ ID NO: 5 or SEQ ID NO: 6.

The claims presented above incorporate changes as indicated by the marked-up versions below.

1. (Amended Twice) A method for inhibiting reduction of bone density in a mammalian patient having a pathological condition in which bone density is decreased, comprising inhibiting in the patient the formation of a tertiary complex of Interleukin-11 (IL-11), Interleukin-11 receptor (IL-11R), and glycoprotein 130 (gp130), thereby decreasing the rate in loss of bone density in said mammalian patient.
5. (Amended Twice) The method of claim 4 or claim 8, wherein the ~~substance is a~~ mutant IL-11R has at least one mutation in its gp130 binding region.
6. (Amended Twice) The method of claim 5, wherein the ~~substance is a~~ mutant IL-11R has having at least one of the following mutations: D282→G282, A283→D283, G286→D286, H289→Y289, and V291→L291.
7. (Amended Twice) The method of claim 6, wherein the ~~substance is a~~ mutant IL-11R has having the mutation H289→Y289.
8. (Amended Twice) The method of claim 6, wherein the ~~substance~~ mutant IL-11R is a soluble mutant IL-11R.

9. **(Amended Twice)** The method of claim 4 or claim 8, wherein the mutant IL-11R is a human IL-11R.
13. **(Amended Twice)** The method of claim 12, wherein the substance is a peptide comprising the sequence identified by ~~SEQ ID NO: 5~~ SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, or SEQ ID NO: 10.
40. **(Amended Twice)** A composition useful in inhibiting IL-11 / IL-11R bindings comprising an antibody which specifically binds the IL-11R and blocks bindings between IL-11 and IL-11R.
41. **(Amended Twice)** A composition useful in inhibiting IL-11R / gp130 bindings via the gp130 binding site on IL-11R comprising an antibody which specifically binds the IL-11R and blocks bindings between gp130 and IL-11R.